



Paul J. Kurzanski, REM
Manager Environmental Remediation
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Public Safety & Environment Department
500 Water Street, J-275
Jacksonville, FL 32202

File: Dearborn, Michigan
CSXT No. R008210

February 18 2005

Mr. Thomas Krueger
Office of Regional Counsel
77 West Jackson Blvd.
Chicago, IL 60604

US EPA RECORDS CENTER REGION 5



467456

Former W.R. Grace Asbestos Investigation, N-Forcer Site, Dearborn, Michigan

Dear Mr. Krueger:

Enclosed is one (1) copy of the *Final Investigation Report* for the above-subject site.

If you have any questions, please give me a call at (904) 359-3101 or call Terri Rubis of ARCADIS at (248) 936 8268.

Very truly yours,

Paul J. Kurzanski
Manager Environmental Remediation

cc:

Brian Kelly, USEPA Region 5 Emergency Response # 1, Grosse Ile, MI
James Justice, USEPA Region 5 Emergency Response # 1, Grosse Ile, MI



Infrastructure, buildings, environment, communications

Paul J. Kurzanski
Manager Environmental Remediation
500 Water Street, J-275
Jacksonville, FL 32202

ARCADIS G&M of Michigan, LLC
25200 Telegraph Road
Southfield
Michigan 48034
Tel 248 936 8000
Fax 248 936 8111
www.arcadis-us.com

Subject:

Former W.R. Grace Asbestos Investigation, N-Forcer Site; CSXT No. R008210,
CSX Transportation, Inc, Dearborn, Michigan

ENVIRONMENTAL

Dear Mr. Kurzanski:

ARCADIS is pleased to provide CSX Transportation, Inc. (CSXT) with the results of the asbestos investigation at the former W.R. Grace Asbestos Plant in Dearborn, Michigan (see Figure 1). On November 12, 2004, ARCADIS completed an asbestos investigation along a rail-road line in Dearborn, Michigan, as requested by CSXT on November 10, 2004. The investigation was conducted because the United States Environmental Protection Agency (USEPA) requested a conference call with CSXT to discuss possible environmental impacts on the CSXT property.

Date:

February 8, 2005

Contact:

Terri Rubis

Phone:

248.936.8268

Email:

trubis@arcadis-us.com

Our ref:

SFE04044.0001

Background

The rail line is located adjacent to a former vermiculite processing plant in Dearborn, Michigan. A sidetrack was diverted from the main line to service the plant at 14300 Henn Street. The track was used to deliver raw material to the plant.

Site Activities

ARCADIS retained Young's Environmental Cleanup Inc (Young's) of Flint, Michigan, an asbestos certified contractor, to collect soil samples (SB-1 through SB-14) along the active track within the CSXT right-of-way (ROW) on November 12, 2004. The CSXT ROW at the former W.R. Grace property extends approximately 15 feet from a track number 1 to the west. The samples were collected at depths ranging from ground surface to 12 inches below ground surface. The sample locations are depicted on the attached Figure 2. Table 1 summarizes the analytical results. Appendix A shows site photographs.

The soil encountered along the track consisted of a thin layer of brown clay of inconsistent thickness; the thin clay layer was not present in a few locations. Beneath the clay, fine black sand was encountered. The sand contained small amounts of gravel, and according to Young's asbestos contractor supervisor, **a reflective material**.

[REDACTED]. The fill sand reached a thickness of up to 12 inches. Beneath the fill sand, brown clay was encountered. The clay extended to a depth of 24 inches below ground surface. The sampling depth was dictated by the encountered soil type. In areas where clay was encountered at the surface, the samples were collected in the deeper sand. The clay did not show signs of vermiculite fiber which would have been washed out during rain events.

Soil samples for asbestos analysis were collected from the sand layer using a hand auger and were biased to visually impacted areas based on visual observations.

The samples were delivered to APEX Research, an asbestos certified laboratory in Whitmore Lake, Michigan, along with the appropriate chain-of-custody documentation.

Based on the November 16, 2004 USEPA conference call, ARCADIS visited the site for a visual inspection of the area near the vacant industrial spur on November 23, 2004. The USEPA had detected traces of raw vermiculite or zonolite in that area. ARCADIS found four fragments (three white fragments and one black fragment) of suspicious material that may be raw vermiculite on the surface near Soil Boring SB-1. The fragments were collected (SB-15) and submitted to APEX Research for asbestos analyses along with the appropriate chain-of-custody documentation.

Results

No asbestos structures (i.e. fibers, bundles) were detected in any of the 15 soil samples collected at the site on November 12 and 23, 2004.

However, the laboratory analysis of Soil Sample SB-15 has determined that one of the white fragments had a green fibrous mineral appearance on one side and was identified as a currently unregulated [REDACTED]. The black fragment and the two remaining white fragments are non-asbestos containing and appear to be gravel or rock fragments.

Figure 2 depicts the location of the samples; Table 1 summarizes the analytical result. The laboratory results are attached in Appendix B.

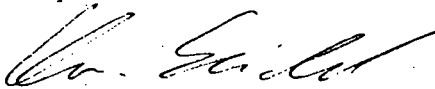
ARCADIS

Mr. Paul J. Kurzanski
February 8, 2005

Please contact any of the undersigned at 248.936.8000 if you should have any questions.

Sincerely,

ARCADIS G&M of Michigan, LLC



Christian Seidel
Geologist



Terri Rubis
Project Manager



Robert A. Ferree, CPG
Vice President

ARCADIS

Table 1. Former W.R. Grace Asbestos Investigation, N-Forcer Site, CSXT No. R008210, Dearborn, Michigan.

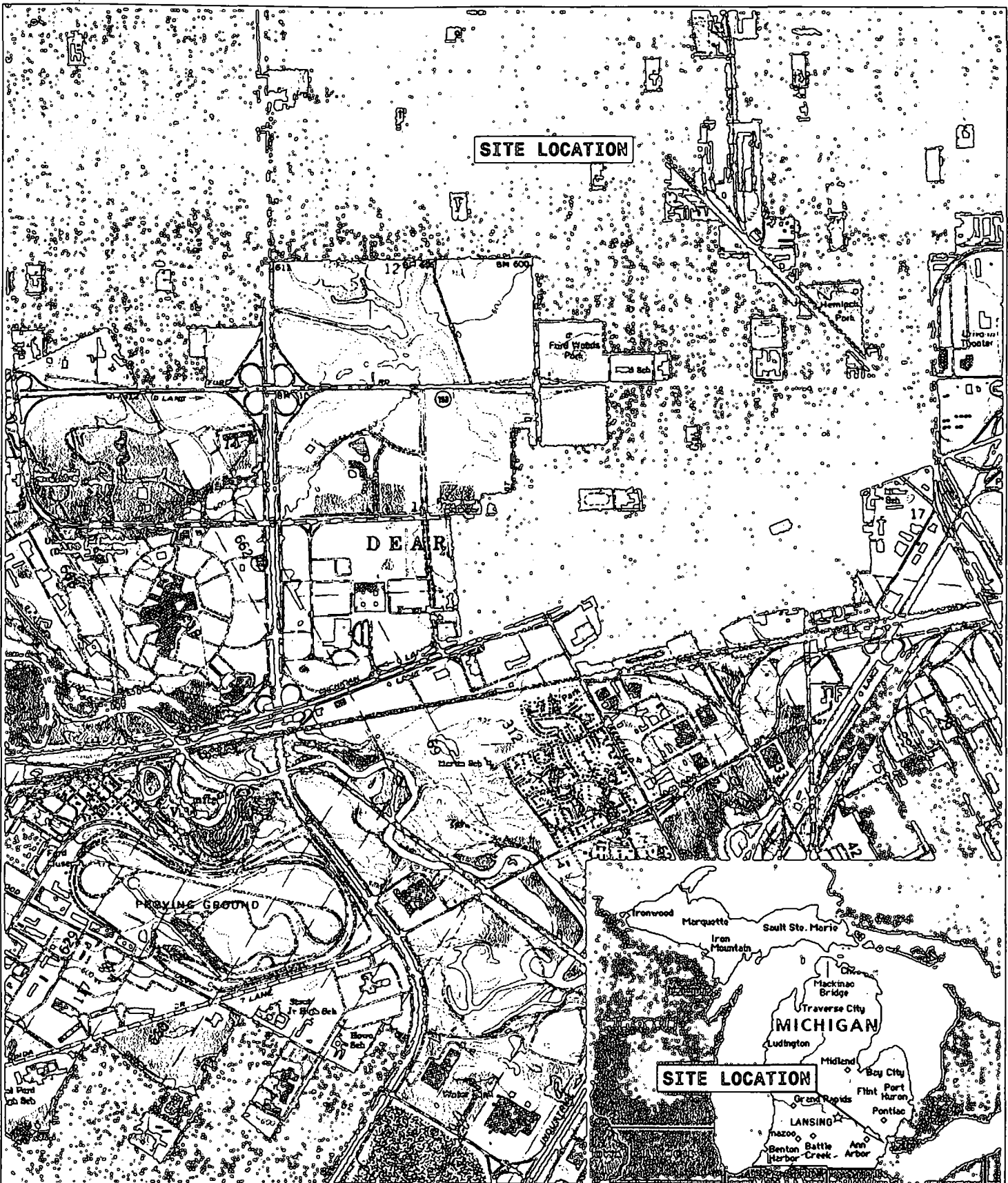
Sample Identification	Depth Collected (inch below surface)	Sample Medium	Result
SB-1	Surface	Sand	NSD
SB-2	6	Sand	NSD
SB-3	3	Sand	NSD
SB-4	10	Sand	NSD
SB-5	10	Sand	NSD
SB-6	12	Sand	NSD
SB-7	12	Sand	NSD
SB-8	12	Sand	NSD
SB-9	Surface	Sand	NSD
SB-10	Surface	Sand	NSD
SB-11	6	Sand	NSD
SB-12	6	Sand	NSD
SB-13	3	Sand	NSD
SB-14	4	Sand	NSD
SB-15 White Fragment 1 *	Surface	Rock Fragment	NSD
SB-15 White Fragment 2	Surface	Rock Fragment	NSD
SB-15 White Fragment 3	Surface	Rock Fragment	NSD
SB-15 Black Fragment	Surface	Rock Fragment	NSD

Notes:

NSD No asbestos structures detected.

* Visual fibrous materials indicated in sample.

\\nas11\itardbrough\date\line : fpi, 11 Feb 2005 - 4:30pm PathName : G:\ENICAD-Files\CSXT\Dearborn\site layout.dwg Layout Tab: site location



© 2005 ARCADIS G&M, Inc	Area Manager
	R. FERREE
	Project Director
	T. RUBIS
	Task Manager
	C. SEIDEL
	Technical Review
	C. SEIDEL



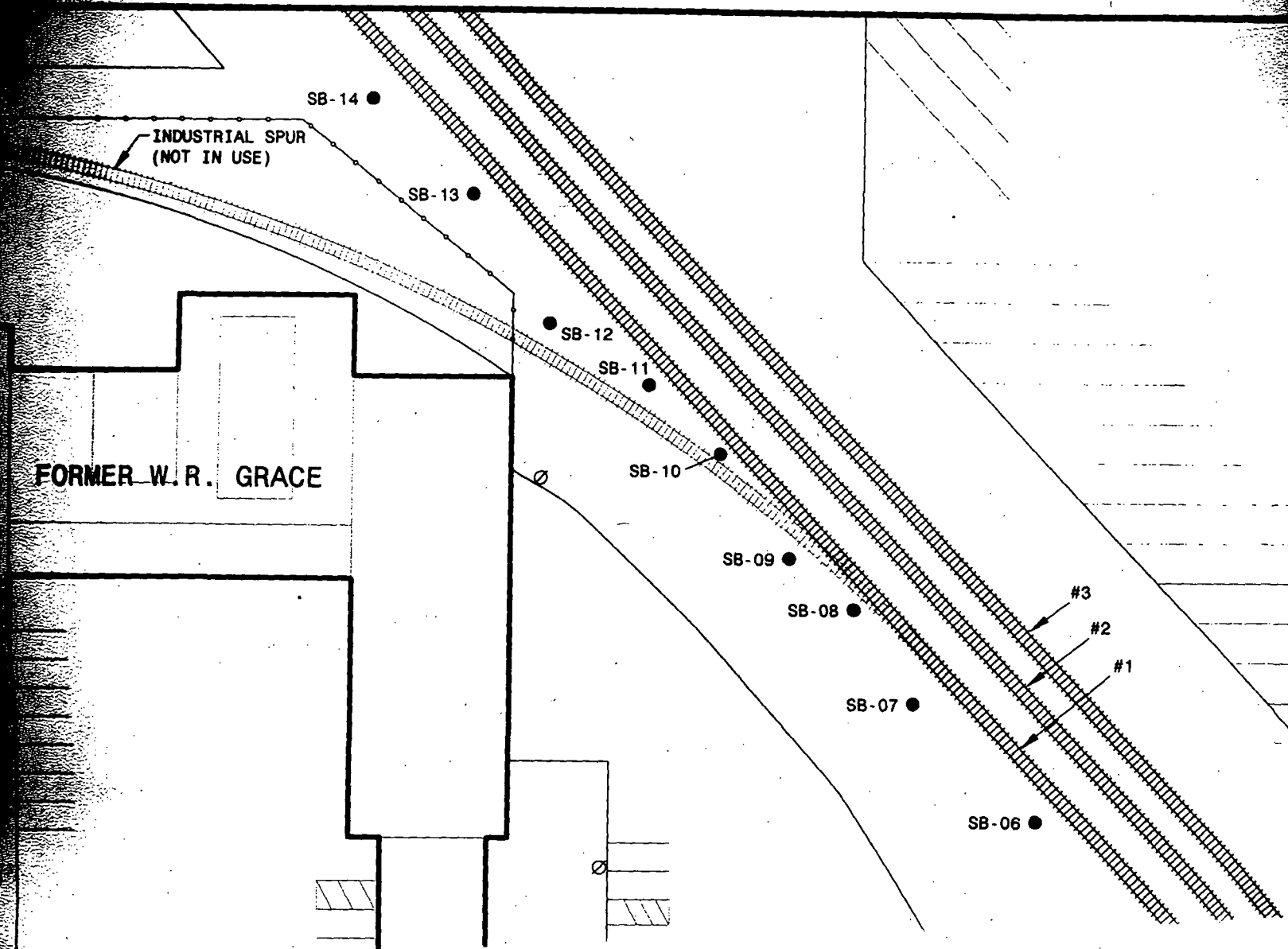
25200 Telegraph Road
Southfield, Michigan 48034
Tel: 248-936-8000 Fax: 248-836-8111
www.arcadis-us.com

CSXT TRANSPORTATION

SITE LOCATION

DEARBORN, MICHIGAN

Project Number	SFE04044.01.01
Drawing Date	11-FEB-05
Figure	1



Certificate of Laboratory Analysis

TEM Bulk Sample Analysis

Project: Dearborn



Report to: Mr. Phil Peterson
Fibertech Environmental Services, Inc.
2280 Aurelius Road
Holt, MI 48842

ARL # 04-T1142
Date Received: 11-14-04
Date Analyzed: 11-15-04
Date Reported: 11-18-04

ARL # T1142-01 Client Sample # SB-1	Sample Date: 11-12-04 Material: Soil Location: Surface
Asbestos Detected: NO Type of Asbestos: Percent of Asbestos : 0.0% Gravimetrically Reduced Sample: 34.8%	
ARL # T1142-02 Client Sample # SB-2	Sample Date: 11-12-04 Material: Soil Location: 6"
Asbestos Detected: NO Type of Asbestos: Percent of Asbestos : 0.0% Gravimetrically Reduced Sample: 21.6%	


Analyst


Robert T. Letarte, Jr. Laboratory Director

NIST-NVLAP Accreditation No. 102118

Methodology: Transmission Electron Microscopy (TEM) In Accordance with ELAP "TEM Method For Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples", Revision 198.4, 8/3/92

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Certificate of Laboratory Analysis

TEM Bulk Sample Analysis



Project: Dearborn

Report to: Mr. Phil Peterson
Fibertech Environmental Services, Inc.
2280 Aurelius Road
Holt, MI 48842

ARL # 04-T1142
Date Received: 11-14-04
Date Analyzed: 11-15-04
Date Reported: 11-18-04

ARL # T1142-03
Client Sample # SB-3

Sample Date: 11-12-04
Material: Soil
Location: 3"

Asbestos Detected: NO

Type of Asbestos:

Percent of Asbestos : 0.0%

Gravimetrically Reduced Sample: 20.3%

ARL # T1142-04
Client Sample # SB-4

Sample Date: 11-12-04
Material: Soil
Location: 6"

Asbestos Detected: NO

Type of Asbestos:

Percent of Asbestos : 0.0%

Gravimetrically Reduced Sample: 42.6%

A handwritten signature in dark ink, appearing to read "J. J. J.", is written over a horizontal line. Below the line, the word "Analyst" is printed in a small, sans-serif font.

A handwritten signature in dark ink, appearing to read "Robert T. Letarte, Jr.", is written over a horizontal line. Below the line, the text "Robert T. Letarte, Jr. Laboratory Director" is printed in a small, sans-serif font.

NIST-NVLAP Accreditation No. 102118

Methodology: Transmission Electron Microscopy (TEM) In Accordance with ELAP "TEM Method For Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples", Revision 198.4, 8/3/92

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Certificate of Laboratory Analysis

TEM Bulk Sample Analysis

Project: Dearborn

Report to: Mr. Phil Peterson
Fibertech Environmental Services, Inc.
2280 Aurelius Road
Holt, MI 48842

ARL # 04-T1142
Date Received: 11-14-04
Date Analyzed: 11-15-04
Date Reported: 11-18-04

ARL # T1142-05
Client Sample # SB-5

Sample Date: 11-12-04
Material: Soil
Location: 10"

Asbestos Detected: NO

Type of Asbestos:

Percent of Asbestos : 0.0%

Gravimetrically Reduced Sample: 8.9%

ARL # T1142-06
Client Sample # SB-6

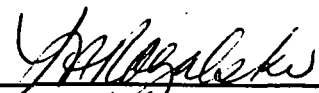
Sample Date: 11-12-04
Material: Soil
Location: 12"

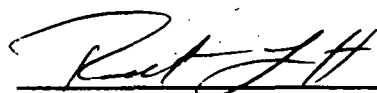
Asbestos Detected: NO

Type of Asbestos:

Percent of Asbestos : 0.0%

Gravimetrically Reduced Sample: 10.3%


Analyst


Robert T. Letarte, Jr. Laboratory Director

NIST-NVLAP Accreditation No. 102118

Methodology: Transmission Electron Microscopy (TEM) In Accordance with ELAP "TEM Method For Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples", Revision 198.4, 8/3/92

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Certificate of Laboratory Analysis

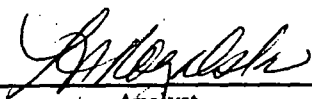
TEM Bulk Sample Analysis

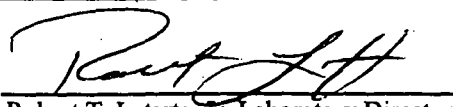
Project: Dearborn

Report to: Mr. Phil Peterson
Fibertech Environmental Services, Inc.
2280 Aurelius Road
Holt, MI 48842

ARL # 04-T1142
Date Received: 11-14-04
Date Analyzed: 11-15-04
Date Reported: 11-18-04

ARL # T1142-07 Client Sample # SB-7	Sample Date: 11-12-04 Material: Soil Location: 12"
Asbestos Detected: NO Type of Asbestos: Percent of Asbestos : 0.0% Gravimetrically Reduced Sample: 10.6%	
ARL # T1142-08 Client Sample # SB-8	Sample Date: 11-12-04 Material: Soil Location: 12"
Asbestos Detected: NO Type of Asbestos: Percent of Asbestos : 0.0% Gravimetrically Reduced Sample: 11.4%	


Analyst


Robert T. Letarte, Jr. Laboratory Director

NIST-NVLAP Accreditation No. 102118

Methodology: Transmission Electron Microscopy (TEM) In Accordance with ELAP "TEM Method For Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples", Revision 198.4, 8/3/92

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Certificate of Laboratory Analysis

TEM Bulk Sample Analysis

Project: Dearborn

Report to: Mr. Phil Peterson
Fibertech Environmental Services, Inc.
2280 Aurelius Road
Holt, MI 48842

ARL # 04-T1142
Date Received: 11-14-04
Date Analyzed: 11-15-04
Date Reported: 11-18-04

ARL # T1142-09
Client Sample # SB-9

Sample Date: 11-12-04
Material: Soil
Location: Surface

Asbestos Detected: NO

Type of Asbestos:

Percent of Asbestos : 0.0%

Gravimetrically Reduced Sample: 24.9%

ARL # T1142-10
Client Sample # SB-10

Sample Date: 11-12-04
Material: Soil
Location: Surface

Asbestos Detected: NO

Type of Asbestos:

Percent of Asbestos : 0.0%

Gravimetrically Reduced Sample: 23.2%


Analyst


Robert T. Letarte, Jr. Laboratory Director

NIST-NVLAP Accreditation No. 102118

Methodology: Transmission Electron Microscopy (TEM) In Accordance with ELAP "TEM Method For Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples", Revision 198.4, 8/3/92

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Certificate of Laboratory Analysis

TEM Bulk Sample Analysis

Project: Dearborn

Report to: Mr. Phil Peterson
Fibertech Environmental Services, Inc.
2280 Aurelius Road
Holt, MI 48842

ARL # 04-T1142
Date Received: 11-14-04
Date Analyzed: 11-15-04
Date Reported: 11-18-04

ARL # T1142-11
Client Sample # SB-11

Sample Date: 11-12-04
Material: Soil
Location: 6"

Asbestos Detected: NO

Type of Asbestos:

Percent of Asbestos : 0.0%

Gravimetrically Reduced Sample: 38.0%

ARL # T1142-12
Client Sample # SB-12

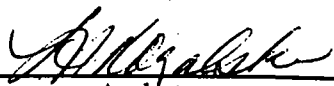
Sample Date: 11-12-04
Material: Soil
Location: 6"

Asbestos Detected: NO

Type of Asbestos:

Percent of Asbestos : 0.0%

Gravimetrically Reduced Sample: 44.1%


Analyst


Robert T. Letarte, Jr. Laboratory Director

NIST-NVLAP Accreditation No. 102118

Methodology: Transmission Electron Microscopy (TEM) In Accordance with ELAP "TEM Method For Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples", Revision 198.4, 8/3/92

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Certificate of Laboratory Analysis

TEM Bulk Sample Analysis

Project: Dearborn

Report to: Mr. Phil Peterson
Fibertech Environmental Services, Inc.
2280 Aurelius Road
Holt, MI 48842

ARL # 04-T1142

Date Received: 11-14-04

Date Analyzed: 11-15-04

Date Reported: 11-18-04

ARL # T1142-13
Client Sample # SB-13

Sample Date: 11-12-04
Material: Soil
Location: 3"

Asbestos Detected: NO

Type of Asbestos:

Percent of Asbestos : 0.0%

Gravimetrically Reduced Sample: 25.1%

ARL # T1142-14
Client Sample # SB-14

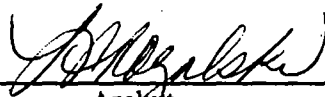
Sample Date: 11-12-04
Material: Soil
Location: 6"

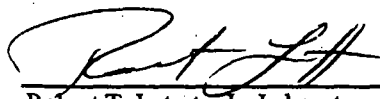
Asbestos Detected: NO

Type of Asbestos:

Percent of Asbestos : 0.0%

Gravimetrically Reduced Sample: 38.1%


Analyst


Robert T. Letarte, Jr. Laboratory Director

NIST-NVLAP Accreditation No. 102118

Methodology: Transmission Electron Microscopy (TEM) In Accordance with ELAP "TEM Method For Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples", Revision 198.4, 8/3/92

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TABLES

FIGURES

Certificate of Laboratory Analysis

TEM Bulk Sample Analysis



Project: N-Forcer Site
Project # R008210

Report to: Ms. Terri Rubis
Arcadis
25200 Telegraph
Southfield, MI 48034

ARL # 04-T1154
Date Received: 12-14-04
Date Analyzed: 12-14-04
Date Reported: 12-16-04

ARL # T1154-01
Client Sample # SB-15, Surface

Sample Date: 11-23-04
Material: Soil, White
Location:

Asbestos Detected: NO

Type of Asbestos:

Percent of Asbestos :

Gravimetrically Reduced Sample: 1.0%

ARL # T1154-02
Client Sample # SB-15, Surface

Sample Date: 11-23-04
Material: Soil, Black
Location:

Asbestos Detected: NO

Type of Asbestos:

Percent of Asbestos :

Gravimetrically Reduced Sample: 5.1%


Analyst


Robert T. Letarte, Jr. Laboratory Director

NIST-NVLAP Accreditation No. 102118

Methodology: Transmission Electron Microscopy (TEM) In Accordance with ELAP "TEM Method For Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples", Revision 1984, 8/3/92

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Certificate of Laboratory Analysis

TEM Bulk Sample Analysis



Project: N-Forcer Site

Project # R008210

Report to: Ms. Terri Rubis

Arcadis

25200 Telegraph

Southfield, MI 48034

ARL # 04-T1154

Date Received: 12-14-04

Date Analyzed: 12-14-04

Date Reported: 12-16-04

ARL # T1154-03
Client Sample # SB-15, Surface

Sample Date: 11-23-04
Material: Soil, Greenish White
Location:

Asbestos Detected: NO

Type of Asbestos :

Percent of Asbestos :

Gravimetrically Reduced Sample: 2.3%

ARL # T1154-04
Client Sample # SB-15, Surface

Sample Date: 11-23-04
Material: Soil, White
Location:

Asbestos Detected: NO

Type of Asbestos:

Percent of Asbestos :

Gravimetrically Reduced Sample: 0.7%

Analyst

Robert T. Letarte, Jr. Laboratory Director

NIST-NVLAP Accreditation No. 102118

Methodology: Transmission Electron Microscopy (TEM) In Accordance with ELAP "TEM Method For Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples", Revision 1984, 8/3/92

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TABLES

FIGURES

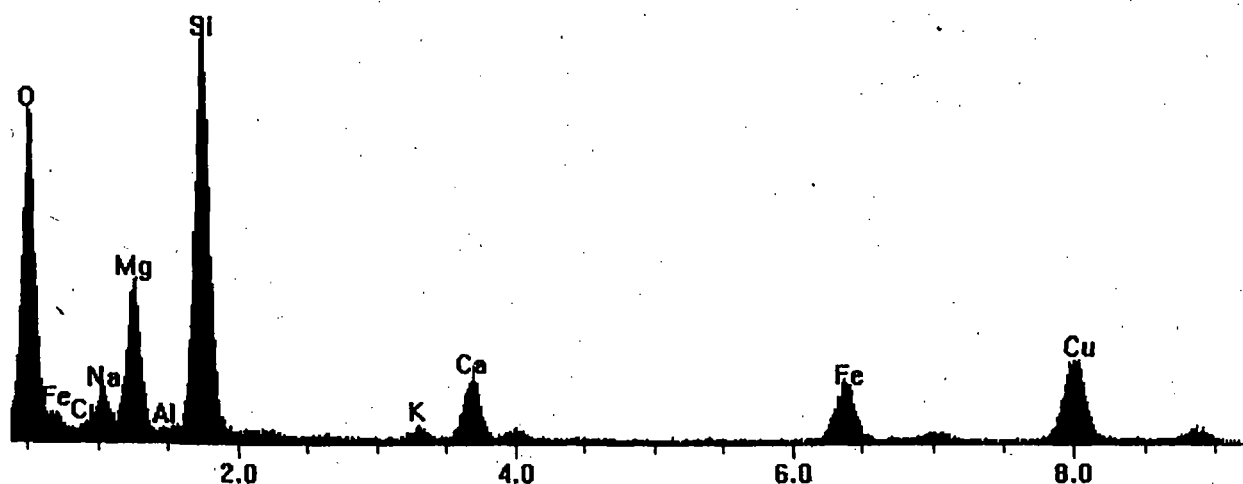
Princeton Gamma-Tech, Inc.
Spectrum Report
Thursday, December 16, 2004

File: C:\Program Files\PGT\Data\115403.pgt
Collected: December 16, 2004 09:09:20

Live Time: 65.35 Count Rate: 3298 Dead Time: 50.48 %
Beam Voltage: 20.00 Beam Current: 2.00 Takeoff Angle: 31.00

■ 115403.pgt

FS: 2250



Element	Line	keV	KRatio	Wt%	At%	ChiSquared
Mg	KA1	1.254	0.0231	6.70	5.51	86.17
Si	KA1	1.740	0.0631	11.31	8.05	86.17
O	KA1	0.523	0.2527	62.46	78.02	86.17
Na	KA1	1.041	0.0070	2.99	2.59	86.17
Al	KA1	1.487	0.0003	0.06	0.04	86.17
Ca	KA1	3.691	0.0177	2.02	1.01	4.37
Fe	KA1	6.403	0.0341	3.78	1.35	3.30
K	KA1	3.313	0.0028	0.34	0.17	4.37
Cu	KA1	8.046	0.0833	10.34	3.25	9.28
Total				100.00	100.00	55.20

$$N_{net} \geq 2\sigma_{net} = \sqrt{2N_B + N_{net}}$$

$$= \sqrt{2(75.1) + 48.8}$$

$$= \sqrt{79}$$

$$N_{net} \geq 2\sigma_{net} = 8.89$$

Na is statistically sig.

$$48.8 \geq 17.78$$

January 10, 2005



Mr. Phil Peterson
Fibertec, Inc.
2280 Aurelius Road
Holt, MI 48842

Subject: Determination of Mineral from Sample #3 on Project R008210

Dear Phil,

Please be informed that I have completed the analysis for the N-Forcer Site for the presence of asbestos in the samples submitted. APEX Research, Inc. has not found any of the 6 regulated asbestos types in these samples. Sample #3 of the samples submitted was composed of an amphibole mineral. Due to a significant Sodium peak in the EDXA (Spectra enclosed) the mineral falls outside the composition formulas associated with the regulated asbestos types. (Only Crocidilite contains a Na peak) This mineral is characterized as a [REDACTED] a category recommended by Dr. Jim Millet with MVA, Inc. in Norcross, Georgia. Dr. Millet recommends this mineral to be handled as asbestos.

I do think it is important to inform you that a debate, legal and scientific, is currently occurring as to whether or not this is to be treated as a regulated mineral or asbestos type. This mineral may cause modifications in the current asbestos regulations.

Please feel free to call me if you have any questions and I will contact you should I become aware of new information regarding this mineral.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert T. Letarte Jr.".

Robert T. Letarte Jr.
Laboratory Director
Apex Research, Inc.